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AUTHOR	Wigle, Stanley E.; And Others
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ABSTRACT

Advocates of full inclusion of students with disabilities in regular education settings are overlooking such elements as the requirement that delivery of services be appropriate for the individual student, that a continuum of alternative placements be available, that the educational rights of nondisabled students not be overlooked, and that general educators be effectively prepared. Criteria to evaluate particular service delivery models are discussed and applied to the Full Inclusion model and the Service Continuum model. Support for the Service Continuum model is found in: (1) the student-adult ratio in inclusive versus special education settings, which influences student-teacher interaction, opportunity to respond, and academic engaged time; (2) the difficulty for regular mainstream teachers to individualize curriculum and accommodate individual students; and (3) the insufficiency of existing models of preservice preparation of general educators to effectively prepare them to instruct students with disabilities. The paper concludes that a continuum of services along with effective collaboration between special education teachers and regular classroom teachers is the only way that schools can meet their responsibility to provide appropriate educational experiences for all of the students they serve. (Contains 74 references.) (JDD)

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Full Inclusion of Exceptional Students: Three Perspectives

Stanley E. Wigle, Ph. D.
Associate Professor

Daryl J. Wilcox, Ed. D.
Professor

Charles D. Manges, Ph. D.
Assistant Professor

Wayne State College
Wayne, NE

Mid-West Educational Research Association
Chicago, IL
October 12-15, 1994

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Introduction

The concept of least restrictive environment (LRE) is presented in the regulations of Individuals with Disabilities Education Act (IDEA), formerly referred to as P. L. 94-142. The regulations **allow** for a "continuum of alternative placements" and that "in selecting the least restrictive environment, consideration [should be] given to any potential harmful effect on the child or on the quality of services which he or she needs" (Rothstein, 1995, p. 123). When the ruling for LRE was first passed, some educators interpreted the Act as requiring **all** students with disabilities to be taught in the regular classroom. This perception of "mainstreaming" is preferred by persons who currently advocate full inclusion of all students with handicapping conditions into the regular classroom. With full inclusion, all students with disabilities would receive special services only through consultative or cooperative services from the special educator and related services personnel.

The advocates of full inclusion are overlooking at least five critical elements in their endeavor to equalize education for all children. First, IDEA requires that the delivery of services must be **appropriate** for the individual student. For some students the mainstream may, in fact, be a very inappropriate placement because the nature of the student's disabilities requires an alternate placement in order to provide the most appropriate educational program. Some students may never be placed in the regular classroom for academic instruction. The placement of disruptive and incorrigible students in the academic classroom is a violation of the educational rights of those children who can benefit from such instruction, non-handicapped and disabled alike.

Second, the Act requires that each student identified as needing specific special services to be successful in the school setting, must have a program designed to meet his/her particular educational needs. The court addressed this matter in the decision on *Daniel R. R. v. State Board of Education*, referring to "[C]ongress's purpose to provide access is a purpose to provide meaningful access, access that is sufficient to confer some educational benefit on the child. Thus, the decision whether to mainstream a child must include an inquiry into whether the student will gain any educational benefit from regular education" (Rothstein, 1995, p. 129).

Third, the Act assures that "[e]ach public agency shall insure that a continuum of alternative placements is available to meet the needs of handicapped children for special education and related services" (Rothstein, 1995, p. 376). Full inclusion of students with special needs is not congruent with the continuum of services mandate. The regulations of IDEA stipulate that placement must be determined on an individual basis (Rothstein, 1995, p. 377). Various alternative placement options are required also by the regulations of the Act in order to assure that each student with disabilities receives an education which is appropriate for his/her individual needs.

Fourth, consideration of the educational rights of nonhandicapped students is very important and must not be overlooked in the fervor of the full inclusion movement. The Act does permit removal of a student with a disability so disruptive as to infringe upon the educational delivery of the nondisabled students in the regular classroom. The removal of a student with a disability to an alternative educational setting, which is determined to be more appropriate for that student at his/her current level of functioning, must be individualized.

Finally, the professional preparation of the general educator to effectively instruct all students under the "Full Inclusion" model is, perhaps, the most critical of the elements addressed above. The Education for All Handicapped Children Act (EHA) and Individuals with Disabilities Education Act (IDEA) stipulate that students with disabilities be removed from the general education environment only when the nature or severity of their exceptionality is such that appropriate instruction cannot be conducted satisfactorily in that setting (Office of the Federal Register, 1987). This regulation has been operationalized to include resource room and other pull-out programs. Consequently, large numbers of students with disabilities were returned to the instructional responsibility of the general educator. Data shows that in the 1991-1992 school year, of the almost 5 million students receiving special educational services, almost 70% of them spent 40% or more of their time in the general education classroom (U. S. Department of Education, 1993).

ADMINISTRATIVE PERSPECTIVE

The ultimate goal of special education , as with all educational programs, is to assist students in becoming productive citizens. Regardless of their level of skill or whether they posses a disability, people cannot be productive if they are unable to function in the society and the workforce.

Legal considerations

From an administrative viewpoint, not only would we suggest that inclusion is beneficial but recent court cases have affirmed inclusive education. Specifically, Magistrate Owen Eagan in Jacob v. Region 15 Board of Education (1992), stated that "Reading the Individuals with Disabilities Act (IDEA) to permit mainstreaming only in instances where handicapped children are fully capable of performing the full curricular requirements of the regular class would eviscerate the mainstreaming preference expressed..." Further, in Rafaelk Oberti v. Clementon Board of Education (1992), Judge John Gerry found that "Inclusion is a right not a privilege for a select few." And finally, Judge David Levi in Rachel Holland v. Sacramento USD Board of Education (1992), established that "The non-academic benefits of mainstreaming a child are closely related to the academic benefits. ...For example, a child may be better able to learn academic subjects because of improved self-esteem and increased motivation due to placement in regular education."

We must agree that the critical issue in special education as in all education is a free and appropriate educational setting. The language of IDEA implies that its writers desired an educational placement where all students would experience an environment as close as possible to what is considered normal. Case law is clear. Students with disabilities may not be excluded from general education classrooms simply because it is easier to educate them in a segregated setting.

Congress enacted IDEA in 1975, and specifically the Least Restrictive Environment (LRE) clause, to reduce the instance of segregating special education students by either educating them in selected classrooms or sending them to remote areas (Osborne, 1988). That legislation has been successful in providing expanded educational access to students with moderate disabilities. However, students with more sever disabilities have not enjoyed the same degree of access to the general educational environment.

Advantages of Inclusion

Because it is resource intensive, special education is expensive. Nearly 4.5 million special needs children are currently receiving services representing an increase of nearly 20% since 1976-77. About 73% of all mentally handicapped children are being educated in segregated settings (Schroeder, 1992). Legally and morally, we must adopt the premise that an effective instructional delivery model which integrates students of diverse backgrounds and experiences, is superior to a model which does not allow students to profit from the diversity of others. Thus, as in other settings (Brown, 1954), segregated special education is unequal and potentially violates the rights of the children segregated. Inclusion involves no exclusion and invites all, realizing that all have a contribution to make.

While participating in a discussion regarding the contribution of Special Education expenditures to the overall increase in per-pupil spending, an interesting trend was identified. The following figures are taken from table 51 of the NCES's Digest of Education Statistics, 1993, entitled "Children 0 to 21 years old served in federally supported programs for the disabled, by type of disability:1976-77 to 1990-91".

Number served as a percent of total enrollment			
Disability	**1976-77**	**1990-91**	**Per Cent + or -**
Specific Learning Disabilities	1.80	5.17	187.2%
Speech or Language Impairments	2.94	2.39	-18.7%
Mental Retardation	2.16	1.30	-39.8%
Serious Emotional Disturbance	0.64	0.95	48.4%
Hearing Impairments	0.20	0.14	-30%
Orthopedic Impairments	0.20	0.12	-40%
Other Health Impairments	0.32	0.13	-59.4%
Visual Impairments	0.09	0.06	-33.3%
Total percentage served	**8.35%**	**10.26% ***	**22.9%**

* Three other disabilities are listed in the table, but data for them are unavailable for 1976-77, therefore, they have been omitted.

Note that for all but two of these disabilities, the percentage of students being served decreased. Of the remaining disabilities, "serious emotional disturbance" increased by about a half, but still accounts for less than 10% of the total. "Specific learning disabilities", now comprises almost half of the total percentage of disabled children. Are more students suffering from the same learning disabilities? Has diagnosis improved? We know that social problems have magnified school problems, leading to more, and higher proportions of children needing special services. We also know that LD has become a more acceptable designation than mental retardation. Has diagnosis become overzealous? Do federal subsidies of special education encourage overidentification of individuals as "LD"?

There exists significant literature questioning whether learning disabilities really exist and what this rise in the last 15-20 years means. Some would argue that those labeled LD are in fact very similar to other low-performing students. Others argue that learning disabilities do exist but that it is just a problem of how to define them. Implementation of an inclusive model allows scarce school district resources (human and material) to be utilized across a broader population. Thus, utilizing the principles of economies of scale.

Instructional Improvement and Students At-Risk

Inclusion has the potential to provide a maximized learning environment for all students not a maximized learning environment for one student at the expense of others. Some regular education teachers view themselves as having fewer responsibilities for the education of the students with disabilities when compared to their teaching responsibilities for other members of the classroom. However, effective resource room teachers identify and implement instructional strategies which dramatically improve the educational environment of identified students. A finite percentage of students (some

suggest as much as 10%) of the school population are students at-risk but not identified. Many of the effective special education instructional techniques, adopted and implemented in a regular education classroom would not only benefit identified students but would also benefit students at-risk. A significant advantage of an effective inclusive model is that it would allow the special education instructor to assist the regular education classroom teacher in improving the educational opportunity for those students who slip through the cracks.

An effective inclusionary model must force the regular education teachers(s) and the special education teachers(s) to assume joint responsibility for the successful education of integrated students. Inclusion does not mean "dumping students with disabilities into regular programs without preparation or support. Effective inclusion provides a learning environment which is totally supported. This learning atmosphere involves other students with special needs, regular and special educators working together, heterogeneous groupings of students, and teachers sharing their ideas and areas of expertise and realization of each child's potential. Effective inclusionary education depends on the classroom teacher(s) being equal partners with the special education teacher(s) and pooling their resources to provide the to all students best educational program possible.

The key to success for integration is to build the services and supports necessary to insure an effective program. It remains the school's responsibility to provide each child with an appropriate education.

LEARNING PERSPECTIVE

In order to provide educational programming for students with disabilities in ways that are congruent with the concept of LRE, certain elements must exist within any learning environment. The focus of any learning environment should always be upon student learning outcomes. Therefore, the following elements, derived from empirical research, would seem to comprise the most logical criteria by which to evaluate any particular service delivery model.

Substantive Student-Teacher Interaction - Research has demonstrated a strong link between student-teacher interaction and student achievement (Brophy, 1979; Cruickshank, 1985; Snyder et al., 1991). Student involvement through such interactions with teachers as being asked questions, responding to teacher monitoring during learning activities, and receiving teacher feedback is clearly associated with student achievement (Brophy & Good, 1986; Brophy & Evertson, 1976; Duffy, Rochler, Meloth, & Vavrus, 1985).

Opportunity to Respond - If all students in a classroom are not called on as equally as possible, the result will be lower achievement on the part of students who are seldom called on to respond (Kerman, 1979). Nonresponding becomes

a pattern, nonresponders become inattentive, and active processing fails to occur. As a result, achievement suffers (Anderson, Evertson, & Brophy, 1979).

Academic Engaged Time - The correlation between instructional time and learning is modest. However, there is a strong relationship between learning and academic engaged time in which students are actually involved in learning activities (Nystrand & Gamoran, 1989). Comparisons of high- and low-achieving students underscore this relationship. For example, Evertson (1980) found that high-achieving students were engaged in learning activities 85% of the time, but low achievers had only a 40% involvement rate. In a similar study of secondary classrooms, high achievers were engaged 75% of the time, but low achivers were on task only 51% of the time (Frederick, 1977).

Maximization of Student Success - A key variable in the achievement of students is success (Anderson, Brubaker, Alleman-Brooks, & Duffy 1985). When work is often beyond the ability of students, they become frustrated, give up, and go off task (Fisher, et al., 1980). Research tends to indicate that success rates should be relatively high in the classroom. In general, those studying basic skill topics need to be about 80% successful in question-and-answer sessions (McGreal, 1985); for seatwork and homework assignments where possibilities for confusion and frustration increase, success rates need to approximate 90% (Berliner, 1984; Brophy 1979).

Relevant Curriculum - Any curricular program must be appropriate for the individual student for whom it is intended (Vergason, 1983). The most common approach to special education curricula has been and continues to be the remedial, basic academic skills orientation (Alley & Deshler,1979; McBride & Forgnone, 1985). However, as students move through the age-grade continuum, instruction for those not bound for postsecondary education must shift to a more practical, applied orientation involving such diverse areas of concern as life skills, social skills and vocational skills (Brolin, 1992; Halpern & Benz, 1987).

A common theme in each of the above criteria is student learning and achievement. Indeed, any choice of a service delivery model must be made on the basis of the effectiveness of that model in both facilitating student learning and in meeting needs both expressed and implicit. With this clarity of focus, the analysis of the FI Model and the SC Model in terms of the above criteria may proceed.

Nearly all instruction to students at all levels in the age-grade continuum is delivered within the context of a classroom setting. The FI Model intends this setting to be a regular mainstream classroom for all students. Proponents of the FI Model are quick to claim that they are not advocating moving students with disabilities into general education classrooms without appropriate suport. Specialists of all types, working in

teams with the regular classroom teacher, would be placed in the regular classroom to provide needed services to all students (Daniels, 1990; Hahn, 1989).

To provide each classroom with its own team of specialists as implied by advocates of the FI Model, would significantly increase the number of professionals that schools would need to employ. This would in turn lead to significantly larger expenditures than those that are currently being budgeted to serve students with disabilities (Chaikind, Danielson, & Brauen, 1993). Given the mood of the American taxpayer, it is not realistic to expect widespread support for ever-greater financial investments in the public schools. Therefore, barring a complete restructuring of the public education system, the setting in which the FI Model contends that all students should be served would be a room containing between 25 to 35 students representing a wide range of special needs. The majority of the students' time would be spent with one adult teacher who would have to meet such diverse student needs by relying on consultant services or the infrequent presence of itinerant specialists.

The Service Continuum (SC) Model intends that the classroom setting for students with disabilities will include both the regular classroom and a variety of other classroom contexts. In the public schools those other classroom contexts would include, depending on the needs of the students involved, resource rooms and self-contained classrooms. The average caseload for resource rooms programs is 26 students. Typically, a resource room will contain from 10 to 15 students with varying disabilities at any given time, one or more certified special educators, and paraprofessional aides. Self-contained classrooms typically contain 15 or fewer students, with an average class size of 9, all of whom have been identified into the same category of disability. A self-contained classroom will typically be staffed by at least one special educator certified to serve students in that category of disability, and one or more paraprofessional aides. Students who are served in resource rooms spend an average of 40% or more of their day in the regular classroom setting and the rest of their day in the resource room setting. Students who are served in self-contained rooms spend an average of 60% or more of their day in such rooms while the rest of their school day is spent in regular mainstream settings (U.S. Department of Education, National Center for Education Statistics, 1988; U.S. Department of Education, Office of Special Education Programs, 1993).

The differences between the student-adult ratio in the Full Inclusion (FI) Model and the SC Model are immediately apparent. It is this difference that becomes a significant factor when the two models are compared using the criteria offered in this paper. Student-adult ratios become especially important when considering the criteria of student-teacher interaction, opportunity to respond, and academic engaged time.

Student-Teacher Interaction:

The importance of student-teacher interactions to student learning has been amply demonstrated. However, when the number of students with whom a teacher must

interact in any given period of time increases, the number of interactions each student can potentially have with the teacher decreases. Such decreases in the number of possible interactions mean that the total amount of teacher attention that can be given to each student also decreases. For example, in a 50 minute period of time, if there are only 15 students in a room with one adult, each student can potentially have about three and a half minutes of teacher attention. If there are three adults in that same room, then the amount of attention each student can potentially receive increases to about 10 minutes for each 50 minute period of time. However, if there are 35 students competing for the attention of one adult, then each student can potentially receive only one minute and 40 seconds of direct attention for each 50 minute period.

These figures, of course, assume an absolute equal division of teacher attention among all students. In the real world of the classroom such equality is rarely encountered. Teachers tend to give most of their attention to students they perceive to be high achievers and less to those they perceive to be low achievers (Babad, Bernieri, & Rosenthal, 1991; Good & Brophy, 1991). Students with disabilities have difficulties learning and need much more direct teacher attention than those without disabilities. Unfortunately, differential treatment of students by teachers in the regular classroom mean that students with disabilities receive less teacher attention and not more. Without intensive and systematic intervention that the high student-teacher ratios of the regular classroom make difficult, students with disabilities tend to lag further and further behind the achievement of their age-grade peers (Learning Disabilities Association, 1993; The National Joint Committee on Learning Disabilities, 1993). In terms of student-teacher interaction, the SC Model with its lower student-adult ratios is potentially more congruent with LRE than the FI Model.

Opportunity to Respond:

The element of student response opportunities is highly correlated with achievement and it is also affected by student-teacher ratios. More opportunities for task-oriented responding in the classroom result in higher levels of student involvement which in turn enhances achievement (Patton & Hales, 1986). As the number of students in a classroom increases the number of potential opportunities to respond that can be made available to each student necessarily decreases. Fewer opportunities to respond is correlated with lower student achievement (Brophy & Evertson, 1974). Compounding the effect of opportunity to respond is the element of differential teacher treatment of students. Opportunities to respond are given more often to students that teachers perceive as high achievers than they are to students that teachers perceive as low achievers (Good & Brophy, 1991). Such mainstream classroom interaction patterns are amazingly homogeneous across the country and across time and grade levels (Cazden, 1986; Villegas, 1991). As a group, students with disabilities need more response opportunities than students with no identified disabilities. Service alternatives are made available in the SC Model that contain lower student-adult ratios than those found in mainstream classrooms. Such alternatives are not available in the FI Model. Given the relationship that exists between response opportunities, achievement and

student-adult ratios, the SC Model is potentially more congruent with LRE than is the FI Model in terms of this criterion.

Academic Engaged Time:

Because of the nature of their learning difficulties, nearly all students with disabilities evidence low engagement rates on academic tasks related to frustration (Anderson, Brubaker, Alleman-Brooks, & Duffy, 1985). Complicating matters is the fact that a great majority of such students also have short attention spans and are highly distractible (Kirk & Gallagher, 1989). If students are to realize their learning potential, they must maximize the time that they are actually engaged in academic tasks. However, in order to do that in the face of student characteristics that work against student academic engagement, the teacher must be able to provide the necessary support and structure that facilitates engaged learning. This implies that, especially for students with disabilities, there must be a high level of student-teacher interaction, consistent and frequent teacher monitoring of student activity, numerous opportunities to respond, and a great deal of effective teacher feedback. Because of the relatively high student-teacher ratio of the regular mainstream classroom, it becomes difficult to provide the level of such instructional supports needed by individual students with disabilities (Viadero, 1990). As a consequence, such students frequently flounder, receive poor grades and often become dropout risks. In contrast to the FI Model, the lower student-teacher ratios of the SC Model have the potential to enable it to provide the instructional supports necessary to facilitate academic engaged time.

Relevant Curriculum:

Whether or not students are presented with a curriculum that is relevant to their needs seems less related to student-teacher ratios than do the first three criteria that have been discussed. Instead, curricular offerings are more impacted by the existence of a standard curriculum. In the regular mainstream classroom this curriculum becomes a focal point for teaching and learning. Teachers are expected to teach it and students are expected to learn it (Fuchs & Fuchs, 1994). This standard curriculum tends to stress academic skills and knowledge that will be needed to prepare students for further educational experiences. However, for students with disabilities there are some difficulties presented by the standard curriculum. First, it often neglects the specific strengths of students and may reinforce their sense of failure by continuing to focus on areas of difficulty. In addition, it often fails to address issues of transfer to nonschool environments which is typically a primary need for students with disabilities. Finally, it often lacks functional content in the areas of independent living and vocational skills which are also important learning outcomes for many students with disabilities (Alley & Deshler, 1979; Deshler, Schumaker, Lena, & Ellis, 1984; Halpern & Benz, 1987).

It is often very difficult for regular mainstream teachers to individualize curriculum and accommodate individual students with disabilities (Baker & Zigmond, 1990; Fuchs, Fuchs, & Bishop, 1992). To do so means that they must be able to plan and

implement an ever greater number of activities and materials in their classrooms. The diversity of needs brought to the classroom by students with disabilities significantly complicates an already complex task for the teacher. And yet such a shift in the curricular focus of the mainstream classroom as outlined above is clearly important in the light of the discouraging data on school dropouts and employment rates among students with disabilities (Affleck, Edgar, Levine, & Kortering, 1990; U.S. Department of Education, 1991).

Both the FI Model and the SC Model allow for the input of "specialists" whose role it is to help regular classroom teachers accommodate their curriculum for students with disabilities. However, barring extensive, time-consuming, and expensive restructuring of public schools, the FI Model can offer regular classroom teachers only consultant services and the infrequent presence of itinerant specialists. Such resources will probably not be sufficient to enable classroom teachers to effectively accommodate to the diversity of needs presented by students with disabilities. Without such accommodation, the FI Model can hardly be equated with LRE. In contrast to the FI Model, the SC Model can make available to classroom teachers the services of full-time, building-based professional special educators as well as placement alternatives for students whose needs dictate such alternatives. Given its greater array of professional personnel, the SC Model offers the potential of developing an efficacious network of collaborative relationships between regular classroom teachers and special educators. Such development allows for the potential of providing all teachers the support necessary to transform any curriculum into a learning program responsive to the needs of all learners (Behrmann, 1992; Dunn, 1968). It is this potential impact on curricular matters that enables the SC Model to more closely approximate LRE for students than the FI Model.

Maximization of Student Success:

The success a student experiences in the classroom is in large part a function of all of the other criteria that have been presented. Given substantive student-teacher interactions and frequent response opportunities, student attention is channeled into appropriate learning activities. Such a result maximizes academic engaged time. All other things being equal, when academic learning time is raised to its highest level, students tend to be more successful than when there is relatively little academic learning time in the classroom. In addition, when the curriculum is relevant to the student's needs and when it is presented at a pace and in a way that effectively facilitates student learning, success is much more likely than when the opposite conditions occur.

The impact of student-teacher ratios upon all of the criteria presented in this discussion makes it very doubtful that the success rate of students with disabilities will be maximized in the regular mainstream classroom. Students with disabilities need more

teacher attention than can be given by a single adult in a room contain 30 or more students. Students with disabilities are at a significant disadvantage in competing for response opportunities when such opportunities are impacted by differential teacher treatment of students. Without systematic and intensive monitoring, many students with disabilities have difficulty focusing their attention and screening out distracting stimuli. Without instructional support to do so, the academic learning time for such students tends to be insufficient for their needs. Given the relatively lower student-teacher ratios that are possible with the SC Model it appears that, as with all of the other criteria, this model is more congruent with LRE than the FI Model.

TEACHER PREPARATION PERSPECTIVE

Even though the majority of students possessing identified special educational needs are taught by the general educator, it cannot be assumed that the appropriate preservice preparation for the mainstream teacher is sufficient as current teacher preparation programs function. The issue of preservice teacher preparation of general educators has been considered by researchers on teacher preparation, but no national-level restructuring of these programs exists. Models for preservice instruction have been suggested and the success of some have been reported. One preparation paradigm incorporates the special education coursework into the general educator's program of study (Brigham, 1993). However, the content varies among preservice programs that make use of this paradigm. They vary according to the number of courses and the competencies taught by each course or program. For example, 33 competencies considered to be important in preservice teacher education programs have been determined for instructing student with learning disabilities in the regular classroom but programs do not consistently include these competencies (Landers and Weaver, 1991). Other sets of competencies have been identified for teachers of students with hearing impairment, visual impairment or emotional-behavioral disabilities (Fink and Janssen, 1993; Fad & Ryser, 1993), and for gifted students (Nelson and Prindle, 1992). The complexity of the types of competencies needed by each general educator is monumental.

A second model of preservice preparation of general educators for teaching students in the least restrictive environment incorporates special education topics into the educational foundation coursework and may be delivered by professors of both disciplines. However, even with the inclusion of special education topics, the graduates of this approach state the need for specific coursework in special education (Fad & Ryser, 1993). The research indicates this model of preservice preparation of general educators is also insufficient to effectively prepare them to instruct any student possessing any of the recognized exceptionalities. Currently, the trend toward disregarding the continuum of services, based on the LRE approach, may actually place the exceptional student in a very restricted environment due to the general educator's inadequate preparation. In 1987, Tait reported a survey of the 50 states regarding the special education preparation requirement for regular classroom teachers. Thirty-three states had required some exposure to the needs of exceptional students, 16 states had

no requirements and one state was considering the requirement. A examination of the certification requirements of the 50 states and the District of Columbia in 1994 shows that 34 states do not list a requirement for a introductory course in special education, nine states include the survey requirement incorporated into the other professional coursework, one state requires "a course," and only seven specify semester hours of credit in a survey course for special needs students (Tryneski, 1994). None require more than three credits. These data indicate that the preservice preparation of general educators does not address the skills needed by the professionals to effectively teach students with disabilities who are placed in the regular classroom setting.

Preservice teachers need to learn how to design learning activities that facilitate academic engagement of the part of all students, but especially those with differing abilities. The general educators need to learn how to individualize for their students and how to select appropriate learning materials for students with differing learning needs. They need to learn how to adapt their learning objectives and their curriculum content to accommodate the needs of students with a wide range of abilities. They need to learn how to use selected materials in their classroom through the use of differentiated seatwork and homework assignments.

The preservice general educator needs to be given significant field experiences with the coursework in special instruction, and be provided opportunities to practice these skills during the student teaching experience. In the field experience, preservice teachers need to be taught questioning techniques that are effective with students who have differing learning abilities and disabilities. The need to focus on such skills as question framing, wait time, cueing, an coaching in the context of the heterogeneous classroom and congruent with the behavioral/learning characteristics of the mainstreamed students who may compound the need for specialized methods of instruction must be included in the pre-student teaching period of preparation. The preservice educator needs to be taught how to monitor the learning of all students, not just that of high achievers. The master general educator at the student teaching site must model praxes that approximates the LRE for those students with exceptionalities and demonstrate the many competencies research has identified for mainstreamed students.

If the regular classroom teachers are to maximize success for students with disabilities, they need to exit teacher preparation programs with a sound understanding of the concept of LRE, what is and what is not. They need to exit teacher preparation programs with an understanding of the elements of an effective learning environment which are congruent with LRE. They need specific skills necessary to provide educational programming for students with disabilities in ways that provide a LRE for such students.

Teacher preparation programs need to develop the mindset in preservice teachers that the proper role and responsibility of a general educator is the facilitation of the growth and development of all students, not just those students whose learning styles happen to match a given teaching style. The preservice preparation needs to include instruction

for the general educator to solicit consultative assistance from the special educator, to serve effectively on prereferral and placement teams, and to co-teach with the special educator in the regular classroom. The field experiences and the student teaching setting must provide the preservice educator with the opportunity to observe these practices and to incorporate them into their own repertoire of classroom delivery (Putnam, 1993).

While a student teacher needs many different experiences with mainstreamed students, it is probable that the master teacher may have been prepared to teach mainstreamed students only through the inservice model and may not be able to provide these critical experiences for the student teacher. Inservice training has been considered the main avenue to assist teachers in the mainstreaming delivery system (Simpson & Myles, 1993). This approach provides a general body of knowledge about the characteristics of exceptional learners but the actual adaptation of the curriculum is left to the discretion and abilities of the general educator, otherwise, specific training is then given to the educator on an individual basis, usually by a consultant.

Special education consultation is founded in P. L. 94-142 and P. L. 99-457 where the LRE continuum of services is specified. The passage of these laws strengthened the concept of professional collaboration to design programs of adapted curricula for students with special educational needs (Morsink, Thomas, and Correa, 1991). However, "consultation has been written about more than it has been practiced in special education" (Lilly, 1987, p. 494). Research indicates that secondary teachers perceive that mainstreaming is not "working." Few accommodative strategies for (LD) are being used, little or no training is provided to the teachers to enable them to teach secondary students with disabilities, and the administrative support necessary for adapting curricula, adequate supervising students and providing necessary materials is insufficient (Betancourt-Smith, 1992). Also, secondary educators are less likely to consult with a special educator about their mainstreamed students (Bacon and Schulz, 1991; Tindal, Shinn, Walz, & Germann, 1987). Another study showed that general educators do not understand the reason they are required to maintain specific records on mainstreamed students in their classes and they consider the special education expectations regarding instructional modifications as unrealistic (Kaufman, 1994). The general educator's lack of knowledge influences their job satisfaction and personal attitudes toward students with disabilities. Lobosco and Newman (1992) found that teachers working with students who have learning disabilities expressed decreased job satisfaction, particularly for teachers without special training.

Preservice teacher education programs do not require consistently that general educators obtain collaboration or teaming skills for programming for students with disabilities. Aksamit (1990) reports that secondary teachers usually have had no contact with disabled students during the student teaching experience. They had received inadequate training in writing Individual Education Plans, classroom management, and adapting curriculum during their preservice education. Other studies confirm the same inadequacy of preservice programs for mainstreaming, at both the elementary and

secondary levels (Luckner, 1992; Warger and Weiner, 1987; Connard and Dill, 1984; Hohn and Brownlee, 1981).

In order to ensure that general educators are prepared to implement the LRE for students with disabilities assigned to their instruction, teacher education programs must be designed so that elementary and secondary preservice teachers are required to develop these competencies in their methods courses or in specifically designed special education courses. In addition, all preservice teachers should exit their preparation programs with an understanding of the different roles that special educators and general educators play in serving student with disabilities in a LRE setting. Teacher educators must ensure that their graduates can work effectively in the collaborative/consultative model to be congruent with LRE.

The advocates of both Full Inclusion (FI) and Service Continuum (SC) models support the assignment of paraprofessionals into the regular classroom to assist the general educator assigned students with exceptionalities. The advocates of FI seem to predict rather blatantly that total mainstreaming of all students with any disability can be successful in the regular classroom setting with the assistance of paraprofessionals and the consultation of special educators and/or related services personnel. The fallacy of this approach is well presented by Kaufman (1994) predicting, "What would it take to make most regular classrooms an appropriate placement for even most of the kids who are now served elsewhere?...it would take more resources than any proponent of the inclusion has dared to suggest" p. 13.

CONCLUSION

The supposition that **all** students with disabilities can be effectively serviced in the regular classroom setting because **some** students with disabilities are successful there is a syllogistic argument. Some students because of the nature or the severity of their needs cannot be adequately served in the mainstream classroom. Indeed, in the 1991-1992 school year, 25.1% of all students with disabilities spent at least 60% of the school day in the self-contained classrooms (U. S. Department of Education, 1993).

Whatever service delivery model is selected to serve the needs of students, it must be selected on an individual, case-by-case basis. There is and will always be a constant presence of great individual differences among students. Without a prohibitively expensive addition of staff, the regular mainstream classroom is simply unable to provide all of the educational programming needed to accommodate such diversity in ways that are congruent with LRE. A continuum of services along with effective collaboration between special education teachers and regular classroom teachers is the only way that schools can meet their responsibility to provide appropriate educational experiences for all of the students they serve. To conclude otherwise would be to sacrifice the needs of students to either ideological purity or to economic expediency.

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